Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (cancelled)
- 2. (currently amended) The tilt correcting apparatus according to claim 1

A tilt correcting apparatus for correcting a tilt amount of a light beam to be radiated from a pickup to a disk, the apparatus comprising:

a pre-pit signal producer configured to produce a pre-pit signal indicative of an existence/nonexistence of a pre-pit formed on the disk on the basis of returned light of the light beam radiated onto the disk;

an RF signal producer configured to produced an RF signal from bits of information recorded on the disk on the basis of the returned light;

a correcting-amount deciding unit configured to decide an optimum tilt-correcting amount by measuring an offset amount on the basis of a relationship between the pre-pit signal and the RF signal and making use of the measured offset amount; and

a tilt corrector configured to correct the tilt amount on the basis of the optimum tilt-correcting amount,

wherein the correcting-amount deciding unit comprises:

- a first detecting device configured to detect a first tilt amount providing an amount of the tilt maximizing the amplitude of the RF signal;
- a second detecting device configured to detect a second tilt amount providing an amount of the tilt maximizing an amplitude of the pre-pit signal;
- a calculating device configured to calculate an offset tilt amount indicative of a difference between the first and second tilt amounts; and
 - a deciding device configured to decide the optimum tilt-correcting amount using

the offset tilt amount.

- 3. (original) The tilt correcting apparatus according to claim 2, wherein the correcting-amount deciding unit further comprises boundary detecting device configured to detect a boundary existing between an information-recorded region and an information-non recorded region on the disk, wherein the first detecting device is configured to detect the first tilt amount in the information-recorded region near the boundary, and the second detecting device is configured to detect the second tilt amount in the information-non recorded region near the boundary.
- 4. (original) The tilt correcting apparatus according to claim 2, wherein the correcting-amount deciding unit is configured to decide the optimum tilt-correcting amount on the basis of the RF signal when the tilt amount in the information-recorded region on the disk is corrected and to decide the optimum tilt-correcting amount on the basis of the LPP signal and the offset tilt amount when the tilt amount in the information-non recorded region on the disk is corrected.
- 5. (original) The tilt correcting apparatus according to claim 2, wherein the correcting-amount deciding unit is configured to decide, as the optimum tilt-correcting amount, a tilt-correcting amount corresponding to the first tilt amount when the tilt amount in the information-recorded region on the disk is corrected and to decide, as the optimum tilt-correcting amount, a tilt-correcting amount corresponding to a sum of the second tilt amount and the offset tilt amount.
- 6. (currently amended) The tilt correcting apparatus according to claim $\underline{21}$, wherein the correcting-amount deciding unit further comprises a correction profile producing device configured to allow the optimum tilt-correcting amount to be obtained at each correcting reference position determined previously on the disk and configured to produce a correction profile consisting of the optimum tilt-correcting amount at each correcting reference position; and wherein the tilt corrector is configured to correct the tilt amount on the basis of the correction profile.

- 7. (original) The tilt correcting apparatus according to claim 6, further comprising a disk rotation controller configured to make the disk rotate, the disk rotation controller configured to make the disk rotate at a constant angular velocity in cases where the correcting-amount deciding unit obtains the optimum tilt-correcting amount at each correcting reference position.
- 8. (currently amended) The tilt correcting apparatus according to claim <u>21</u>, further comprising a memory configured to memorize the optimum tilt-correcting amount obtained at each of a plurality of radial positions of the disk.
- 9. (currently amended) A tilt correcting method of correcting a tilt amount of a light beam to be radiated from a pickup to a disk, the method comprising the steps of:

producing a pre-pit signal indicative of an existence/nonexistence of a pre-pit formed on the disk on the basis of returned light of the light beam radiated onto the disk;

producing an RF signal from bits of information recorded on the disk on the basis of the returned light;

deciding an optimum tilt-correcting amount by measuring an offset amount on the basis of a relationship between the pre-pit signal and the RF signal and making use of the measured offset amount; and

correcting the tilt amount on the basis of the optimum tilt-correcting amount, wherein the step of correcting the tilt amount includes the steps of:

detecting a first tilt amount providing an amount of the tilt maximizing the amplitude of the RF signal;

detecting a second tilt amount providing an amount of the tilt maximizing an amplitude of the pre-pit signal;

calculating an offset tilt amount indicative of a difference between the first and second tilt amounts; and

deciding the optimum tilt-correcting amount using the offset tilt amount.